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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,777	10/17/2003	Boy-Chy Wang	PPG 1892A1	9538

7590 10/05/2004

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EXAMINER	
GRAY, JILL M	

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,777	WANG, BOY-CHY	
	Examiner	Art Unit	
	Jill M. Gray	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-26 and 30-51* is/are rejected.

7)☒ Claim(s) *5-7 and 27-29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-12, 15, 23-26, 28, 30-34, 45, 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Fahey 4,259,190.

Claims 1-4 and 23-26 are product by process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe,*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Accordingly, claims 1-4 are drawn to a size composition comprising a starch mixture comprising a high viscosity starch and a low viscosity starch and claims 23-26 are drawn to a glass fiber at least partially coated with the residue of a sizing composition comprising a starch mixture comprising a high viscosity starch and a low viscosity starch.

Fahey teaches an aqueous sizing composition for glass fibers comprising a starch mixture comprising a high viscosity starch and a low viscosity starch as required by claims 1-4 and 23-26. See abstract. The composition further comprises at least one emulsifier, a cationic lubricant comprising an alkylimidazoline, a biocide, coupling agent, oil and wax, as required by claims 8-12, 15, 30-34, 37. See columns 5 and 6. In

addition, the glass fiber strand comprises a plurality of glass fibers, per claim 45. See column 10, lines 15-18.

Therefore, the teachings of Fahey anticipate the invention as claimed in present claims 1-4, 8-12, 15, 23-26, 28, 30-34, 45, 47.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

Claims 13-14, 16-22, 35-36, 38-44 and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fahey 4,259,190 as applied above to claims 1-4, 8-12, 15, 23-26, 28, 30-34, 45, 47.

Fahey is as set forth above but does not teach the specific silane coupling agent or wax.

As to claims 13 and 35, the incorporation of coupling agents in size compositions is well known in the art. Accordingly, the specific silane of claims 13 and 35 is no more than a preferential selection of one silane coupling agent from among many being selected for its art recognized purpose. Accordingly, this limitation is not construed to be a limiting factor in the inventive composition. Regarding claims 14 and 36, it would have been obvious to include a defoamer to reduce foaming of the composition during processing. As to the waxes of claims 16-20 and 38-42, the waxes taught by Fahey would have provided a suggestion to the skilled artisan that waxes of the type

contemplated by applicants could be used with a reasonable expectation of success of forming a size composition having suitable lubricious properties. Regarding claims 21-22 and 43-44, it would have been obvious during routine experimentation to determine the optimum concentration of components in the size composition. It is to be expected that a change in temperature or in concentration or in both would be an unpatentable modification and these ranges in the present claims have not been determined to be critical ranges. As such, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. Regarding claim 46, this claim is drawn to the size of the glass fibers, wherein changes in size and shape ordinarily are not a matter of invention. As to claims 47-51, Fahey teaches at column 1, line 29 that weaving fabrics is known. Accordingly, it would have been obvious to use his size composition in a method of weaving.

Therefore, the prior art teachings of Fahey would have rendered obvious the invention as claimed in present claims 13-14, 16-22, 35-36, 38-44 and 47-51.

Allowable Subject Matter

Claims 5-7 and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jill M. Gray
Examiner
Art Unit 1774

jmg